REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claim 1 has been amended to include the feature of Claim 2 whereby a plurality of light transmitting windows are provided. Claims 1 and 2 have also been amended to recite that the light transmitting windows are "rigid." Basis for this is believed to be evident from the description that the windows are made from synthetic quartz, for example. Claims 1 and 2 have also been amended to recite that the windows are located on a light path from the light source. Basis for this is evident from Figures 1, 2, 4A and 4B. Claims 1 and 2 have also been amended to recite a support member positioned on one surface of the reaction chamber, and beams fixed on the support member and positioned between the light transmitting windows to support each of the light transmitting windows with air tightness. Basis for this is found in the beams 15 illustrated in the embodiments. Claims 1 and 2 have also been amended to recite a substrate holder having a region on an upper surface of the substrate holder to hold a substrate to be processed. Basis for this is found in the substrate holder 7 of the embodiment, on which the substrate 6 may be placed.

The "check" pattern of Claim 5 has been changed to "checkerboard" pattern. Basis for this is believed to be evident from a "check" pattern. Claim 18 has been amended to recite the elements of the groups 12-16 of the periodic table, as set forth on page 46 of the specification. New Claims 21-23 recite that the light transmitting windows are juxtaposed in the moving or swinging directions. Basis for this is found in the first three lines of original Claim 8.

Applicants with to thank Examiner Bueker for the courtesy of an interview on December 16, 2005, at which time the outstanding rejections were discussed, as were possible amendments. Based upon the discussion held at that time, it is Applicants'

understanding that the present claim amendments overcome the rejection under 35 U.S.C. § 112, second paragraph.

According to a feature of the invention set forth in the claims, a driving mechanism linearly moves or swings a substrate holder in a direction parallel to a surface to be processed. This permits the width of the light transmitting window in the moving direction to be made smaller then the length of the substrate or a region of the substrate holder in the moving direction while avoiding unevenness in processing due to shadows of beams supporting the light transmitting window. One can therefore provide a plurality of light transmitting windows. For example, referring to the non-limiting embodiments, a driving mechanism 34 moves a substrate holder 7 in the direction B2 which is parallel to the surface to be processed. Therefore, the plural light transmitting windows 4 have widths smaller than the length of the region of the substrate holder which holds the substrate.

As discussed during the interview, the Sakuma et al references disclose a thermal processing system in which a single light transmitting window 68 is supported by a frame member 66 including intermediate frames 72 (Figure 11) so that the pressure on the transmitting window is improved (column 8, lines 19-38 and column 11, lines 17-35). The Sakuma et al references thus fail to disclose a plurality of windows, but instead disclose a single window supported by a frame. Therefore, Sakuma also lacks the presently claimed feature of support "with air tightness." For this reason alone, the claims define over the Sakuma references.

Claim 1 further recites a driving mechanism which linearly moves the region of the substrate holder relative to the light transmitting window in one direction parallel to the surface to be processed. Claim 2 recites a driving mechanism which linearly swings the region of the substrate holder relative to the light transmitting window in a direction parallel to the surface to be processed. Sakuma et al, on the other hand, does not *linearly* move or

swing the substrate holder, but instead *rotates* the substrate holder in order to more evenly heat the substrate (column 1, lines 29-34).

During the aforementioned interview, the Examiner posited that linearly moving a substrate holder was known in the art, for example as taught by the references cited against Claims 6-8 to teach a step of moving a substrate in a reciprocating motion or swinging motion. However, none of these references would suggest the linear movement or swinging now recited in the claims.

For example, Tolt describes "The substrate is permitted to rotate back-and-forth... ." Although Murakami (Fig. 7) shows that a substrate can rotate and move in parallel and transversal direction with respect to the gas flow (column 2, lines 36-59), the invention is a CVD apparatus having gas nozzles 4-1 through 4-4 on the upper section, and is different from the light processing apparatus of the present application. Although Miller (Fig. 17) discloses that a chuck 120 linearly moves in a drive assembly 218, the invention is also a CVD apparatus having an injection assembly 160 on the upper section. Wertheimer (Figs. 1-4) is not a light processing apparatus, but a plasma processing apparatus using microwaves. This is clear as reference numeral 19 denotes a microwave window and not a light transmitting window.

Claim 12 was rejected under 35 U.S.C. § 103 as being obvious over Sakuma in view of Iwasaki and Maeda, which were cited to teach that it is desirable to place another chamber adjacent to a lamp processing chamber of the type taught by Sakuma. Although Iwasaki (5,174,881) discloses a CVD chamber adjacent to a preprocessing chamber having a mercury lamp 1, the pre-processing chamber does not comprise the structural elements of Claim 1. Although in Maeda (5,314,538), a wafer moves between multiple chambers, Maeda does not comprise the structural element of claim 1.

Claim 13 was rejected under 35 U.S.C. § 103 as being obvious over Sakuma in view of Takasu, Inayoshi or Iwasaki, each of which was cited to teach that a low pressure mercury lamp can be used for photochemical processing of a substrate held in a vacuum chamber. Similarly, Claims 14, 15 and 17 were rejected under 35 U.S.C. § 103 as being obvious over Sakuma in view of the admitted prior art of Figure 12. Claim 18 was rejected under 35 U.S.C. § 103 as being obvious over Sakuma in view of Beinglass. Claim 20 was rejected under 35 U.S.C. § 103 as being obvious over Sakuma in view of Iwasaki, Shinriki, Beinglass and Nakata.

Although the references to Takasu (5,261,961), Inayoshi (JP 2-182883) and Iwasaki (5,174,881) disclose using a low-pressure mercury lamp, the references do not comprise the structural elements of Claims 1, 2 and 16.

Beinglass (column 1, lines 18-39) discloses the technology of depositing a silicon doping layer using a CVD process in which a dopant gas (phosphine, arsine, etc.) is used, and the gas is heated by a high intensity lamps 138. However, Beinglass is not a light processing apparatus, and does not comprise the structural elements of Claims 1, 2 and 16.

Shinriki and Nakata (Asia Display/IDW '01) do not comprise the structural elements of Claims 1, 2 and 16.

New Claims 21-23 further define the moving or swinging direction as being in the direction that the light transmitting windows are juxtaposed. This is also not taught in the prior art.

Applicants note that the Examiner has not considered reference AY of the IDS filed on December 30, 2003 because no copy of this reference is in the official record. Applicants note, however, that copies of five references were cited on that date, as evidenced by the attached date-stamped filing receipt. For the Examiner's convenience, Applicants are submitting a further copy of the reference AY, "*Low Temperature Oxide Formation for Poly-*

Si TFT by Plasma and Light Process" (see specification, page 2, lines 7-17). Consideration of this reference is therefore respectfully solicited.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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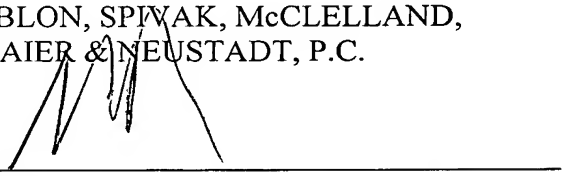

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